AKULOV, I.I.; BARZHIN, V.Ya.; VALITOV, R.A.; GARMASH, Ye.N.;
KUCHIN, L.F.; NAYDEROV, V.Z.; PUTSENKO, V.V.;
SEMENOVSKIY, V.K.; SIMONOV, Yu.L.; TARASOV, V.L.;
TEREKHOV, N.K.; SHEVYRTALOV, Yu.B.; YUNDENKO, I.N.;
CHISTYAKOV, N.I., prof., otv. red.; KOKOSOV, L.V., red.

[Theory and design of basic radio circuits using transistors] Teoriia i raschet osnovnykh radiotekhnicheskikh skhem na tranzistorakh. Moskva, Sviaz', 1964. 454 p. (MIRA 18:8)

TARASOV, V.M.

Some data on underground waters obtained in petroleum prospecting in southeastern Turkmenia. Trudy VSEGEI 46:437-445 '61.

(MIRA 14:11)

(Turkmenistan--Petroleum geology)
(Turkmenistan--Water, Underground)

TARASOV, V.M.

Fresh waters in the southeastern part of the Kara Kum. Zap. LGI 44 no.2:46-50 '62. (MIRA 16:3)
(Kara Kum--Water, Underground--Analysis)

TARASOV, V.M., inzh.

Make more extensive use of electrified and pneumatic hand instruments. Der. prom. 12 no.12:19-21 D '63.
(MIRA 17:3)

1. TARASOV, V. N.

2. USSR (600)

4. Makarenko, Anton Semenovich, 1888-1939

7. At the Poltava Teachers' Institute; from recollections about A. S. Makarenko. Izv. Ak. ped. nauk no. 38, '52.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

TARASOV, V. N., Cand Med Sci -- (diss) "Data on the study of the biological and morphological characteristics of the Sendai para-influenza virus," Leningrad, 1960, 24 pp (Leningrad Pediatrics Medical Institute) (KL, 36-60, 118)

TARASOV,V.N.

"Changes in tissue culture and in the organism of susceptible animals infected with Sendai Virus."

Report submitted for the 1st Intl. Congress on Respiratory Tract Diseases of Virus and Rickettsial Orgin. Prague, Czech. 23-27 May 1961

TARASOV, V. N., LERMONTOV, V. V., MOROZENKO, M. A., SELIVANOV, A. A.

"The reactogenic and immunigenic properties of adenoviruses and haemadsorptive viruses."

Report submitted for the 1st Intl. Congress on Respiratory Tract Diseases of Virus and Rickettsial Orgin. Prague, Czech, 23-27 May 1961.

BASHMAKOV, G.A.; TARASOV. V.N.

Use of polyethylene vessels for the production and transportation of tissue cultures. Vop. virus 8 no.5:628-629 S-O'63 (MIRA 17:1)

1. Virusnaya nauchno-issledovatel'skaya laboratoriya i kafedra mikrobiologii Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

TARASOV, V.N.

Dynamic range of a phase-sensitive rectifier. Vop. pered. inform.
3:94-99 '64. (MIRA 18:1)

TARASOV, V.N.

Theoretical radius of the rolling of a flexible wheel. Avt. prom. 31 no.1:22-23 Ja '64. (MIRA 18:3)

1. Sibirskiy avtomobil'no-dorozhnyy institut.

TARASOV, V.N., inzh.

Traction qualities of machinery with a water ballast. Stroi. i dor. mash. 10 no.2:10-11 F '65. (MIRA 18:3)

TARASOV, V.N., inzh.

Tensometering traction dynamometer. Stroi. i dor. mash. 10 no.4:34-35 Ap '65. (MIRA 18:5)

(A) L 3949-66 EWT(m)/EWP(j)/T RM

ACCESSION NR: AP5023375 UR/0343/65/000/008/0010/0012
629.11.012.5:621.86.016

44

30
28
B

AUTHOR: Tarasov, V. N. (Engineer)

TITLE: Load capacity of liquid-filled tires 15,44

SOURCE: Traktory i sel'khozmashiny, no. 8, 1965, 10-12

TOPIC TAGS: tire, pneumatic tire, tire load, tire capacity

ABSTRACT: The load-carrying capacities, deformations, and average contact stresses of liquid-filled and pneumatic tires are theoretically calculated and compared with experimental results. Based on the model shown in Fig. 1 on the Enclosure, the vertical forces acting on the elastic ties of the tire carcass are derived as

$$\Delta G_{к} = (G_{к} + G_{в} - G_{см}) - p_{w} F_{к};$$

and

$$\Delta G_{к} = G_{к} - p_{w} F_{к}$$

for liquid-filled and pneumatic tires respectively, (where $G_{cm} = F_k H \gamma$; F_k = tire contact area; H = fluid column height; p_w = inside pressure at upper point). The average contact stresses are derived as

$$\sigma_{к} = p_{w} + p_{см} + \Delta p_{к};$$

and

$$\sigma_{к} = p_{w} + \Delta p_{к},$$

Card 1/3

L 3949-66

ACCESSION NR: AP5023375 2

for liquid-filled and pneumatic tires respectively (where p_{cm} = hydrostatic pressure on contact area, Δp_k = component of contact pressure due to carcass elasticity). The accuracy of these results is confirmed by their comparison with experimentally obtained curves of ΔG_k and σ_k versus λ, and λ versus p_w for several types of water-filled and pneumatic tires including types 16.00-20, 12.00-20, and 12-30 (Goodyear tire). Orig. art. has: 10 formulas and 5 figures.

ASSOCIATION: SibADI im V. V. Kuybysheva (SibADI) 44

SUBMITTED: 00 ENCL: 01 SUB CODE: GO

NO REF SOV: 002 OTHER: 000

Card 2/3

L 3949-66
ACCESSION NR: AP5023375 ENCLOSURE: 01

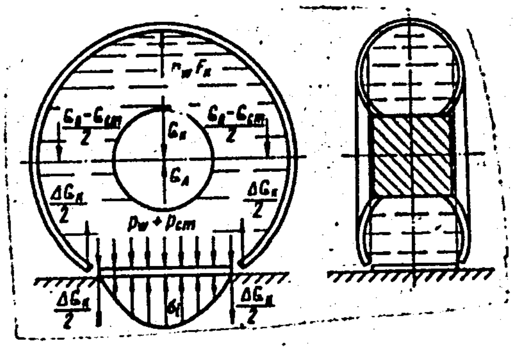


Fig. 1. Model of liquid-filled tire

Card 3/3 DP

UL'YANOV, N.A., doktor tekhn. nauk; TARASOV, V.N., insh.

Effect of the tire tread design on tractive properties of self-propelled earthmoving machines. Stroi. i dor. mash. 10 no.10:2-4 O '65. (MIRA 18:10)

TARASOV, V.N.

Plastics and synthetic polymers in medical microbiology.
Zhur.mikrobiol., epid. i immun. 42 no.12:121-126
D '65. (MIRA 19:1)

1. Voyenno-meditsinskaya ordena Lenina akademiya imeni
Kirova.

SINITSKIY, A .A., prof.; TARASOV, V.N.; GOREV, N.Ye.; BASHMAKOV, G.A.,
mayor meditsinskoy sluzhby

Ways of improving the methods of virological studies; a review of the literature. Voen. med. zhur. no.10:39-42 O '65.
(MIRA 18:11)

ALISOV, P.A., general-mayor meditsinskoy sluzhby, prof.; BOLDASOV, V.K., kand. med. nauk; KAZANTSEV, A.P., podpolkovnik meditsinskoy sluzhby, doktor med. nauk; NEMIRO, Ye.A.; TARASOV, V.N., kand. med. nauk; MEBEL', B.D., kand. med. nauk

Experience in clinical and laboratory diagnosis of acute respiratory diseases in man. Voen.-med. zhur. no. 1:49-53 Ja '66 (MIRA 19:2)

AP6028731 (N) SOURCE CODE: UR/0402/66/000/004/0492/0497

AUTHOR: Tarasov, V. N.; Bashmakov, G. A.

ORG. Virus Scientific Research Laboratory, Military Medical Order of Lenin Academy im. S. M. Kirov, Leningrad (Virusnaya nauchno-issledovatel'skaya laboratoriya Voyenno-meditsinskoy akademii); Microbiology Department, Military Medical Order of Lenin Academy im. S. M. Kirov, Leningrad (Kafedra mikrobiologii Voyenno-meditsinskoy akademii)

TITLE: Cell culture on the surface of high-molecular polymers

SOURCE: Voprosy virusologii, no. 4, 1966, 492-497

TOPIC TAGS: cell culture, high polymer, polymethylmethacrylate, polystyrene, cellulose nitrate, pentoplast, fluoroplast, virus, cell monolayer method, cytology

ABSTRACT: Cell monolayers were grown on various plastics. As shown by the table, the plastics had little or no biological activity and are suggested for use in tissue culture. The best growth occurred on polymethylmethacrylate, polystyrene, cellulose nitrate, pentaplast, and fluoroplast surfaces. Plastic versions of various types of vessels

Card 1/2

UDC: 578.085.23.678.7

Card 2/2

ACC NR: AT6034426 SOURCE CODE: UR/0000/66/000/000/0080/0084

AUTHOR: Koval'chuk, I. N. (L'vov); Tarasov, V. N. (L'vov)

ORG: none

TITLE: Experimental investigation of heat-resistant logging-probe cable

SOURCE: AN UkrSSR. Termostoykiye radiotelemetricheskiye sistemy (Heat resistant radiotelemetering systems). Kiev, Naukova dumka, 1966, 80-84

TOPIC TAGS: connecting cable, telemetry system

ABSTRACT: As logging-probe electric cables are called upon to operate at temperatures up to 250C and pressures up to 1200 atm in superdeep boreholes, and as the electric characteristics of such cables are liable to vary under such conditions and thus affect the telemetry equipment connected to the cables, these characteristics were measured on a 6084-m length of a Soviet-made KO3DF-6

Card 1/2

ACC NR: AT6034426

logging cable (armored, 40 Sh-teflon insulated). The characteristic impedance and amplitude-frequency characteristic are shown for frequencies up to 200 Mc. Some data was gained from 6000-m hole cable testing in Aral-Sor; the depth temperature was 195C; pressure, 1000 atm; carrier frequencies, 5 and 15 kc. These tests "permit hoping that the cable characteristic variation will not exceed 20% at maximum temperatures and pressures." Orig. art. has: 3 figures and 1 formula.

SUB CODE: 09/17/ SUBM DATE: 05Apr66 / ORIG REF: 002

Card 2/2

TARASOV, V.N., inzh.

Loading capacity of tires with liquid ballast. Trakt. i sel'khozmash. no.8:10-12 Ag '65. (MIRA 18:10)

1. Sibirskiy avtomobil'no-dorozhnyy institut im. V.V. Kuybysheva.

L 22121-65 EWT(l)/EWG(k)/EWT(m)/EEC(k)-2/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(h)
Pm-4/Pz-6/Peb IJP(c)/AFWL/ASD(a)-5/ESD(c) JD

ACCESSION NR: AT5001688 S/3120/64/000/003/0094/0099

AUTHOR: Tarasov, V. N.

B+1

TITLE: The dynamic range of phase-sensitive rectifiers 25

SOURCE: AN UkrSSR. Fiziko-mekhanicheskiy institut. Voprosy peredachi informatsii, no. 3, 1964, 94-99

TOPIC TAGS: rectifier, controllable rectifier, rectifier dynamic range, transfer characteristic, circuit linearity, phase sensitive rectifier, silicon diode, germanium diode 21

ABSTRACT: Although numerous papers have described circuits of controllable rectifiers (see, e.g., R. Ya. Berkman, Izmeritel'nays tekhnika, no. 2, 1967), few have studied the problem of the extension of the dynamic range of such devices. However, in the above mentioned reference, one can find a determination of the relative instability of the zero point of the phase-sensitive detector, which quantity is precisely inverse to the magnitude of the dynamic range. This is the starting point of the present study necessitating the investigation of the interval of linearity of the transfer characteristics as a function of the control voltage. Theoretical considerations were checked experimentally. Tests using the circuit

Card 1/2

L 22121-65

O

ACCESSION NR: AT5001688

shown in Fig. 1 of the Enclosure showed that the dynamic range does not increase uniformly but has a maximum as a function of Uy. Using silicon diodes at 20C one can achieve a dynamic range in excess of 50,000, but this happens only after a specified forming time, which, depending on the value of the control voltage U_x, may take as long as 2 hours. No such forming time is needed when germanium diodes are used. The article also gives data on the temperature sensitivity of the device. Orig. art. has: 12 formulas and 3 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 01 SUB CODE: EE

NO REF SOV: 005 OTHER: 000

Card 2/3

ASTASHEV, Gennadiy Kuz'mich; TURGUNOV, Dadakhan Turgunovich; MATVIYENKO,
Nikolay Andreyevich; TARASOV, Viktor Pavlovich; PONOMAREV, V.S.,
inzh., retsenzent; KISELEVA, N.P., inzh., red.; VOROTNIKOVA, L.F.,
tekhn. red.

[Eliminating the malfunctioning of the TGM3 diesel switching locomotive] Ustranenie neispravnostei manevrovogo teplovoza TGM3. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 45 p. (MIRA 15:2)
(Diesel locomotives—Maintenance and repair)

TARASOV, V.P., tekhnik; ORCHINSKIY, B.Ye., tekhnik, brigadir po remonty
dizeley M753

Some improvements of the TGM3 diesel locomotive. Elek. i tepl.tiaga
6 no.8:23-24 Ag '62. (MIRA 17:3)

1. Mashinist-instruktor teplovoznogo depo Tashkent (for Tarasov).

LAVRENT'YEV, M.L.; KOTEL'NIKOV, I.V.; TARASOV, F.P.; TARASOV, V.P.

Smelting foundry pig iron with low-basicity slags. Metallurg 5 no.9:3-6 S '60. (MIRA 13:8)

1. Zavod im. Il'icha.
(Cast iron--Metallurgy)

TARASOV, V.P.

Changes of material charging parameters with increasing gas pressure in the furnace top. Metallurg 6 no.12:2-4 D '61.
(MIRA 14:11)

1. Zhdanovskiy metallurgicheskiy zavod im. Il'icha.
(Blast furnaces)

POKHVISNEV, A.N., prof., doktor tekhn.nauk; TARASOV, V.P., inzh.; TARASOV, F.P., inzh.

Charging arrangement with two large bells. Metallurg 7 no.2: 9-11 F '62. (MIRA 15:3)

1. Moskovskiy institut stali i zavod im. Il'icha.
(Blast furnaces--Equipment and supplies)

POKHVISNEV, A.N., doktor tekhn.nauk, prof.; TARASOV, V.P., inzh.; TARASOV, F.P., inzh.; KOTEL'NIKOV, I.V., inzh.; LAVRENT'YEV, M.L., inzh.

New charging equipment for blast furnaces. Stal' 22 no.1:16-17 Ja '62. (MIRA 14:12)

1. Moskovskiy institut stali i Zhdanovskiy zavod imeni Il'icha.
(Blast furnaces--Equipment and supplies)

TARASOV, V.P.; TARASOV, F.P.

New developments in the charging of blast furnaces. Metallurg 8 no.2:3-5 F '63. (MIRA 16:2)
(Blast furnaces—Equipment and supplies)

POKHVISNEV, A.N., prof., doktor tekhn.nauk; TARASOV, V.P., inzh.; TARASOV, F.P., inzh.

Distributing the charge materials around the furnace top by a standard charge distributor. Stal' 24 no.2:100-104 F '64. (MIRA 17:9)

1. Moskovskiy institut stali i splavov, Zhdanovskiy metallurgicheskiy institut i Zhdanovskiy metallurgicheskiy zavod im. Il'icha.

TARASOV, V.P.; RASPOPOV, I.V.

Durability of the bells and hoppers on the new charging equipment. (MIRA 18:10)
Metallurg 10 no.10:8-11 O '65.

1. Zhdanovskiy metallurgicheskiy institut.

ACC NR: AP7002024 (A) SOURCE CODE: UR/0142/66/009/005/0652/0655

AUTHOR: Rodionov, Yu. P.; Tarasov, V. P.

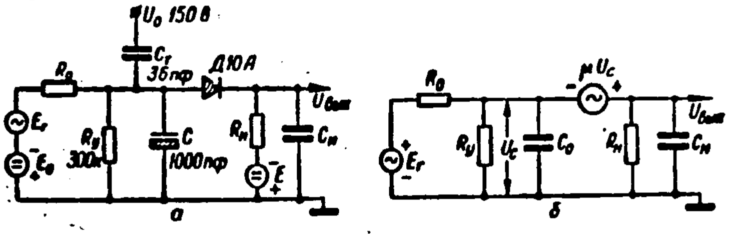
ORG: none

TITLE: Studying the RC-amplifier by means of a nonlinear-capacitance transistor model

SOURCE: IVUZ. Radiotekhnika, v. 9, no. 5, 1966, 652-655

TOPIC TAGS: electronic amplifier, RC amplifier, amplifier design, voltage amplifier

ABSTRACT: The RC-amplifier with parallel connection of nonlinear capacitance and load (see figure) is theoretically analyzed on the basis of its equivalent circuit. The amplifier was investigated experimentally by means of a transistor model at a pumping frequency of 200 kc. It is found that: (1) The above amplifier does not reverse the incoming-signal phase and amplifies voltage only if $R_{load} > R_{in}$; thus, it cannot be cascade-connected; (2) The upper cutoff frequency of the amplifier is determined by the nonlinear-capacitance parameters



Physical Equivalent

RC-amplifier circuits

UDC: 621.375.1

Card 1/2

ACC NR: AP7002024

and R_{leak}, by the load capacitance and resistance, and by the decoupling resistance (between the sources of power supply and signal); (3) The input impedance of the amplifier is capacitive. Orig. art. has: 3 figures and 14 formulas.

SUB CODE: 09 / SUBM DATE: 04Apr66 / ORIG REF: 001

Card 2/2

ACC NR: AP7002828 SOURCE CODE: UR/0142/66/009/006/0735/0741

AUTHOR: Rodionov, Yu.P.; Stepanenko, I.P.; Tarasov, V.P.

ORG: none

TITLE: A transistorized model of nonlinear capacitors

SOURCE: IVUZ. Radiotekhnika, v. 9, no. 6, 1966, 735-741

TOPIC TAGS: electronically variable capacitor, transistorized circuit, test model

ABSTRACT:

A transistorized circuit that is a model of high-Q nonlinear voltage-controlled capacitors with a high ratio of maximum-to-minimum capacitance is described. The circuit consists of a transistorized three-stage feedback amplifier which contains no inductive components. The equivalent input impedance and Q-factor of the circuit are controlled by the input voltage. The shape of the circuit volt-capacitance characteristics can easily be changed to resemble various complex shapes — a dome shape, for example. High-frequency transistors must be used in the circuit to obtain the best frequency characteristics. The volt-capacitance characteristics of the circuit resemble

Card 1/2 UDC: 621.382.31

ACC NR: AP7002828

those for surface-charge barrier capacitors. Actually, only the reactive (capacitive) component of the circuit input impedance is voltage-variable. The variation range of the circuit capacitance (C_{max}--C_{min}) is significantly smaller than that for actual capacitors. This constitutes a significant advantage over actual capacitors. [IV]

SUB CODE: 09/ SUBM DATE: 04Apr66/ ORIG REF: 004/ ATD PRESS: 5114

Card 2/2

ACC NR: AP7000798 (A,N) SOURCE CODE: UR/0089/66/021/005/0392/0394

AUTHOR: Degtyarev, S. F.; Kukhtevich, V. I.; Suvorov, A. P.; Tarasov, V. V.; Tikhonov, V. K.; Tsypin, S. G.

ORG: none

TITLE: Angular distributions of fast neutrons emerging from hydrogen-containing media

SOURCE: Atomnaya energiya, v. 21, no. 5, 1966, 392-394

TOPIC TAGS: fast neutron, neutron distribution, lithium compound, water, neutron radiation, radiation intensity, neutron shielding, neutron detector

ABSTRACT: The authors report results of experiments on the angular distributions of the flux (dose intensity) of fast neutrons with energy $E \geq 0.7$ Mev, emerging from plates of lithium hydride of 0.5 g/cm^3 density and 15, 30, 45, and 60 cm thick, and from layers of water 15 and 45 cm thick. The radiation source was a collimated beam of neutrons (plane unidirectional source). The neutron spectrum was similar to that of the BSR reactor. The measurements were made for angles 0 - 55°. The neutrons were registered with a fast-neutron scintillation detector consisting of a Plexiglas tablet with ZnS(Ag) admixture, secured to the end window of a photomultiplier (FEU-59). The results show that for angles larger than 10° a change in the plate thickness has little effect on the form of the angular distribution. At angles 0 - 10°, the neutron flux exhibits a pronounced peak due essentially to unscattered neutrons. With increasing thickness of lithium-hydride plates, the height and width of this

Card 1/2 UDC: 539.125.5: 539.121.72

ACC NR: AP7000798

peak decrease, owing to the increase in the fraction of scattered neutrons. The results for lithium agree satisfactorily with results of many-group calculations by the authors (Voprosy fiziki zashchity reaktorov [Problems in the Physics of Reactor Shielding], edited by D. L. Broder et al., no. 2, M., Atomizdat, 1966, p. 18). The results for lithium and water are likewise in good agreement with similar measurements by others. The results also show that there is little difference in the data for lithium hydride, polyethylene, and water, the results agreeing within 20% at angles 20 - 60°, and by not more than 30% at smaller or larger angles. The authors used results of individual measurements by L. A. Trykov and I. V. Goryachev. Orig. art. has: 5 figures and 2 formulas.

SUB CODE: 20,18/ SUBM DATE: 05Jul66/ ORIG REF: 002/ OTH REF: 003

Card 2/2

S/137/62/000/004/110/201
A052/A101

/P. 8200

AUTHORS: Rauzin, Ya. R., Akimova, O. F., Tarasov, V. R.

TITLE: On the effect of macrostructure on the strength of bearing cups

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 48-49, abstract 4I289 ("Tr. Vses. n.-i. in-ta zh.-d. transp.", no. 221, 1961, 72-84)

TEXT: Bearing steels of ШХ 15 (ShKh15) and ШХ 15СГ (ShKh15SG) grades were investigated. The increase of density, obtained by the pressure work with a high degree of reduction in area raises σ_w and contact endurance of a hardened bearing steel. An increase of service life of axle bearing elements can be secured by a combination of a high metallurgical quality of the initial ingot with a pressure work (flattening) with a high degree of reduction in area. By passing over from a mixed fiber pattern, produced with the use of standard technology of forging cups on forging machines, to a longitudinal one the average service life of bearings can be increased by a factor of ~ 1.4. 13

T. Rumyantseva

[Abstracter's note: Complete translation]

Card 1/1

PESOV, A.I., inzh.; TARASOV, V.R.; PROKOPENKO, N.M., mostovoy master

Improving the current roadbed maintenance. Put'i put.khoz. 4
no.7:16-17 Jl '60. (MIRA 13:7)

1. Nachal'nik distantsii, stantsiya Rtishchevo, Privolzhskoy dorogi
(for Prokopenko).
(Railroads--Maintenance and repair)

TARASOV, V. R.

Tarasov, V. R. "The surgical treatment of coenurosis of ruminants in Krigizia", Sbornik rabot po gel'mintologii (Vsesoyuz. in-t gel'mintologii im. akad. Skryabina), Moscow, 1948, p. 219-31.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

TARASOV, V. R., Lect.
Moscow Fur Institute
"Rumenotomy in traumatic reticule-peritonitis of cattle."
SO: Vet. 25 (10) 1948, p. 26

TARASOV, V. R., Lect., and PAVLOV, V. F.
Kirgiz Agricultural Inst.
"Use of nasal-esophagus probe in Bactrian camels."
SO: Vet. 26 (7) 1949, p. 32

TARASOV, V. R., Lect.
Moscow Fur Institute
"Castration of bactrian camels."
SO: Veterinariya 27(11), 1950, p. 49

TARASOV, V. R.

"Surgical treatment of coenurosis (avertin) of ruminants".
Moscow. Sel'khozgiz. 1952. 32 pages with illustrations.
SO: Vet., Aug. 1952, Unclassified.

1. TARASOV, V.R.

2. USSR (600)

4. Veterinary Obstetrics

7. Cesarean section in cattle. Veterinariia 29 no. 12. 1952

9. Monthly List of Russian Accessions, Library of Congress, March, 1953. Unclassified.

TARASOV, V, R.

USSR/ Medicine - Veterinary

Card 1/1 Pub. 86 - 31/39

Authors : Tarasov, V. R., Cand. Veterin. Sc.

[redacted]

Title : A rare case (Operation on dog)

Periodical : Priroda 44/3, 121 - 122, Mar 1955

Abstract : An account is given of a dog swallowing a knife which was discovered by an X-ray examination and then removed by an operation after which the dog recovered completely. Illustrations.

Institution : .....

Submitted : .....

TARASOV, V. R.

USSR/Medicine - Veterinary medicine

Card 1/1 Pub. 86 - 30/36

Authors : Tarasov, V. R.

Title : Coenurosis in saigas

Periodical : Priroda 44/6, page 119, Jun 1955

Abstract : An instance is recorded of a saiga (species of gazelle), which showed symptoms of coenurosis, a disease most frequently affecting sheep.

Institution : .....

Submitted : .....

TARASOV, Vasiliy Romanovich; YARNYKH, A.M., redaktor; ZUBRILINA, Z.P., tekhnicheskiy redaktor.

[Treatment of coenurosis in ruminants] Lechenie tsenurosa zhvachnykh Izd.2-oe, ispr.i dop. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1956. 63 p. (MLRA 10:4)

(Domestic animals--Diseases)

TARASOV, Vasiliy Romanovich, kand.veterin.nauk; YARNYKH, A.M., red.;
SUKHODOL'SKAYA, I.M., tekhn.red.; GOR'KOVA, Z.D., tekhn.red.

[Surgery in sheep breeding] Khirurgiia v ovtsevodstve. Moskva,
Gos.izd-vo sel'khoz.lit-ry, 1959. 195 p. (MIRA 13:10)
(Veterinary surgery) (Sheep--Diseases and pests)

BAKHTOV, S.G.; PARSHUTIN, G.V.; RODIN, I.I.; TARASOV, V.R.;
YAKIMCHUK, I.L.; BYRDINA, A.S., red.

[Practical manual on veterinary obstetrics, gynecology, and artificial insemination of farm animals] Praktikum po veterinarnomu akusherstvu, ginekologii i iskusstvennomu osemeneniiu sel'sko-khoziaistvennykh zhivotnykh. [By] S.G.Bakhtov i dr. Moskva, Kolos, 1965. 295 p.
(MIRA 18:4)

TARASOV, V.R., kand. veter. nauk; GUSEV, A.I., red.

[Teat diseases and their treatment in cows] Bolezni soskov i ikh lechenie u korov. Moskva, Kolos, 1965. 93 p. (MIRA 18:7)

AFON'KIN, I.V.; TARASOV, V.S.

Utilization of calculating machines for the investigation of gyroscopic instruments. Nauch.-tekh.inform.biul.LPI no.5: 86-92 '58. (MIRA 12:5)

(Electronic calculating machines)
(Gyroscope)

SOV/112-59-2-3476

9(6)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 2, pp 177-178 (USSR)

AUTHOR: Tarasov, V. S., Aksenov, B. Ye.; and Butomo, I. D.

TITLE: Use of Electronic Computers for Solving Various Problems of Engineering Physics (Primeneniye elektronnykh matematicheskikh mashin dlya resheniya zadach iz razlichnykh oblastey tekhnicheskoy fiziki)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1958, Nr 194, pp 223-240

ABSTRACT: Four examples of problems are cited that were solved by an analog computer (developed in 1953-1954) in the Leningrad Polytechnic Institute: 1. Investigation of the behavior of a gyrotachometer subjected to sinusoidal and dry-friction torques. 2. Investigation of an electromechanical nonlinear followup system that has two degrees of freedom. 3. The problem of a laminar boundary layer which can be reduced to solving of a nonlinear differential equation of the third order with specified boundary conditions.

Card 1/2

SOV/112-59-2-3476

Use of Electronic Computers for Solving Various Problems of Engineering Physics

4. Investigation of an explosion of a dustlike mixture in an enclosed space. For each of the above problems, complete schemes of solution are presented, methods for selecting scale factors are described, and graphical solutions are given. Eighteen illustrations. Bibliography: 1 item.

Ye.G.S.

Card 2/2

16.6800

69944

AUTHORS: Tarasov, V. S., Docent, Vazhnov, A. I., S/105/60/000/04/002/024
Docent, Rakitskiy, Yu. V., Engineer, B007/B008
Popov, V. V., Engineer, Semenova, L. N., Engineer

TITLE: Method of Investigating Dynamic Stability on Analog Computers 16

PERIODICAL: Elektrichestvo, 1960, Nr 4, pp 7 - 12 (USSR)

TEXT: The description of characteristics for the investigation of transients in 2 synchronous machines (Fig 1) working parallel to a net of infinite output over punctiformly distributed resistors is the purpose of the paper under review. It is assumed that the influence of the effective resistance of the stator circuits, and the transients caused by these resistances can be neglected. Synchronous machines with non-salient poles, with 2 symmetrical windings on the d- and q-axis, with a nonsaturated magnetic circuit, and controllable excitation are investigated. A number of successive modes of operation of the power network must be investigated to solve the problems of dynamic stability on an analog computer. The characteristics of these problems are indicated here. Formulas (1) to (10) written down under the above mentioned assumptions show that the structure of these formulas remains about the same for various modes of operation. It is therefore sufficient to set up the differential equations only for one mode of operation before the disturbance. The transition to short X

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Method of Investigating Dynamic Stability on Analog Computers

S/105/60/000/04/002/024
B007/B008

circuit and to the mode of operation after the disturbance is achieved by switching over, or switching off, respectively, the corresponding inlets and outlets of the circuit-scheme elements. Various time scales must be used in order to reproduce the various modes of operation with sufficient accuracy. A linear relation exists between the variables of the machine and the actual values when solving problems on computers. A nonlinear relation may also occur in a number of cases. In these cases it is not the proportionality factor of the variables of the machine and of the actual variables which forms the variable scale, but the proportionality factor of their differentials. The variable time scale is realized technically by connecting a relay group to the solution circuit. The contacts of these relays connect additional resistors to the inlets of the integrators, or cause a shunt of the relays. It is shown how to obtain sine-cosine functions for a wide range of argument variation. The characteristics for the solution of problems of dynamic stability with slight fading are investigated. It is shown that the smaller the fading in the power network to be simulated, the greater the error developing because of exterior and interior disturbances in the circuit scheme. The problem of selection of the multiplier type when solving the problems of dynamic stability is investigated. It is shown that a combination of electronic and electromechanic

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Method of Investigating Dynamic Stability on Analog Computers

S/105/60/000/04/002/024
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multipliers must be used for these problems. The methods of checking the correctness of the solution of problems of dynamic stability are investigated. The most correct and most suitable checking of transients is the solution of the problem on various time scales. Problems of dynamic stability of a synchronous generator were successfully solved on the analog computer developed at the LPI im. Kalinina (Leningrad Polytechnic Institute imeni Kalinin) under the direction of Professor T. N. Sokolov with the aid of the method given here. There are 4 figures and 5 Soviet references.

4

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. Kalinina (Leningrad Polytechnic Institute imeni Kalinin)

SUBMITTED: September 19, 1959

Card 3/3

TARASOV, V.V., inzh.

Multiseat molds. Mash.Bel. no.6:188-190 '59. (MIRA 13:6)
(Molding (Founding)--Equipment and supplies)

KRASHKEVICH, Kirill Vasil'yevich; MIRONOV, Vasiliy Petrovich;
TARASOV, Veniamin Vasil'yevich; NAUMOV, N.P., prof., red.;
SRETENSKIY, A.I., red.; LAZAREVA, L.V., tekhn. red.

[Medical parasitology; general part] Meditsinskaia parazitologiia; obshchaia chast'. Moskva, Izd-vo MGU, 1963. 139 p.
(MIRA 16:7)

(PARASITOLOGY)

TARASOV, V. V.

Seed growing of vegetables IAkutsk, Gos. izd-vo IAASSR, 1940. 28 p.

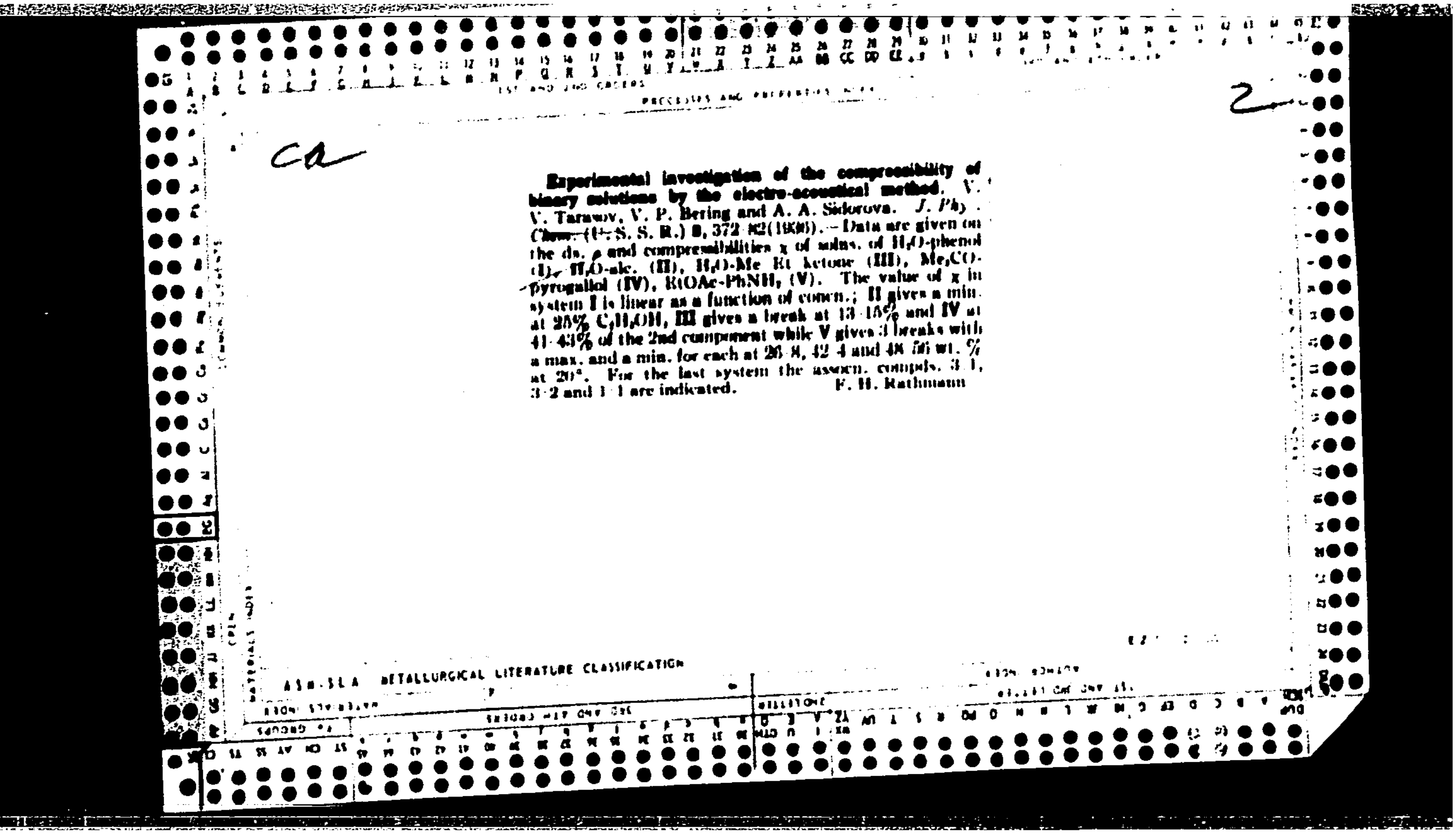
KRAVCHENKO, A.T.; RODIN, I.M.; SHOSHTYEV, I.N.; BELYAKOVA, M.I.; SERGEYEV,
N.N.; TARASOV, V.V.

Preparation and purification of immune serums against tick-borne
and Japanese encephalitis. Vop.med.virus. no.8:106-113 '63.
(MIRA 17:10)

TARASOV, V.V.

USSR.

Volkov, A.S.; Tarasov, V.V. and Deviatkova, A.V. O postanovke ucheta effektivnosti gidrometeorologiche~~skogo obsluzhivaniia~~ narodnogo khoziaistva v mestnykh upravleniiakh gidrometsluzhby. [The method of establishing effectiveness of the hydrometeorological service for the national economy by local administration of the hydrometeorological se *Meteorologiia i Gidrologiia*, No. 6:22-24, 1952. DLC—Discussion about organiza nd work of services. The authors discussed the system of the hydrometeorological servic nd method of determining its effectiveness. The necessity of collecting complete references from the customers about the use of information rendered was pointed out. *Subject Heading*: 1. Hydrometeorological services.—*N.T.Z.*



PROCESSES AND PROPERTIES INDEX

ca

2

Experimental investigation of the compressibility of binary solutions by the electro-acoustical method. V. V. Tarasov, V. P. Bering and A. A. Sidorova. *J. Phys. Chem.* (U. S. S. R.) 8, 372-82(1936).—Data are given on the ds. ρ and compressibilities χ of solns. of H_2O-phenol (I), H_2O-alc. (II), H_2O-Me Et ketone (III), Me_2CO-pyrogallol (IV), EtOAc-$PhNH_2$ (V). The value of χ in system I is linear as a function of concn.; II gives a min. at 25% C_2H_5OH, III gives a break at 13-15% and IV at 41-43% of the 2nd component while V gives 3 breaks with a max. and a min. for each at 26.8, 42.4 and 48.56 wt. % at 20°. For the last system the assocn. compds. 3:1, 3:2 and 1:1 are indicated. F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND CODERS

3RD AND 4TH CODERS

PROCESSES AND PROPERTIES INDEX

BC

A-1

Theory of metallic state. I. V. V. Tarasov and B. P. Bering (J. Phys. Chem. Russ., 1939, 13, 124—132).—An equation of state for metals is given. It contains two unknown vals., namely the no. n of "free" electrons per atom and the vol. available for these electrons, which can be calc. from thermal expansion and compressibility. For most metals $n = 1$, but for some $n = 2$. J. J. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

[illegible]

Theory of low-temperature heat capacity of linear macromolecules. V. V. Tarasov (*Compt. rend. Acad. Sci. U.R.S.S.*, 1945, [illegible], 20–23). —Mathematical. Vibrational degrees of freedom in linear macromols. are considered, and an expression for the heat capacity of the macromols. is derived.

S. R. R.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

2

The theory of the specific heat of high polymers. II. Rubber, graphite. V. V. Tarasov. *Doklady Akad. Nauk S.S.S.R.* 46, 117-21(1945); *Compt. rend. acad. sci. U.R.S.S.* 46, 110-14(1945)(in English).—Data on the sp. heat of graphite can be used directly to demonstrate the validity of the previously derived formula for the low-temp. sp. heat, c_v, of two-dimensional macromols. (cf. preceding abstract). The corresponding formula for c_v of linear mols. can be correlated with data on the sp. heat of rubber by the following interpretation: The vibrations of the C-H bonds have a high frequency (2900-3000 cm.$^{-1}$) and are too weakly excited to contribute essentially to the sp. heat. In the polyprene chain, 4 C atoms of each isoprene residue perform characteristic valence and deformation vibrations following a linear distribution law, whereas the fifth C atom of the Me group has its own characteristic frequencies assocd. with the C-C bond. The correction for converting c_p to c_v does not depend essentially on temp. Up to 200°K., the macromol. factor, $3R/n$, is negligible. The convex character of the exptl. sp. heat curves at low temps. (up to 120°K.) is due to progressive excitation of rotation vibrations of the CH_2 groups of the chain and of the CH_3 groups attached thereto. J. W. Perry

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

2

Theory of the specific heat of high polymers. III. Stratified lattices. V. V. Tarasov (Mendeleyev Inst. Chem. Technol., Moscow). *Compt. rend. acad. sci. U.R.S.S.* 34, 705-8(1940)(in English); cf. *C.A.* 39, 5118^{6}. The sp. heats of laminate crystals, as representative of two-dimensionally polymerized structures, are considered from the standpoint of the Debye function. Published data for As, Sb, Ga, $MnCl_2$, $MgCl_2$, and $FeCl_2$ are summarized.

M. L. Nielsen

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

AUTHOR INDEX

FA 38T8

USSR/Chemistry - Polymers, High
Chemistry - Heat Capacity

Nov 1947

"Theory of Thermal Capacity of High Polymers," V. V. Tarasov, Chemicotechnological Institute imeni D. I. Mendeleyev, Moscow, 4 pp

"Dok Ak Nauk" Vol LVIII, No 4

Discusses the question of the interrelationship of chains and layers. States that the theory which he submits is the first approximation to calculating the interrelative force between chains or layers. General form of the thermal capacity function for linear dual and triple links is as follows:

[redacted]

38T8

USSR/Chemistry - Polymers, High (Contd) Nov 1947

$$C_m = 3m(m+1)R\left(\frac{T}{\theta_m}\right)^m \int^{\theta_m/T} \frac{x^m dx}{e^{x}-1} - 3mR\frac{\theta_m}{T}\left(e^{\theta_m/T}-1\right)^{-1}.$$

He explains method by which he arrived at the function and states that his results were confirmed by experimental data. Submitted by A. F. Ioffe, 20 May 1947.

[redacted]

38T8

TARASOV, V. V.

TARASOV, V.

2

4113. Calorific and thermal properties of natural rubber in the orientated and unorientated states. B. GENGRINOVICH, and V. TARASOV. "Issledovaniya po Fizike i Khimii Kauchuka i Reziny", 1950, p. 3–20. In a series of experiments on commercial smoked sheet the authors studied the temperature dependence of the volume of the rubber in the range of transition from the orientated to the unorientated state, and also measured the sp. gr. and certain mechanical properties of the orientated rubber. It is found that the transition from the anelastic to the elastic state is accompanied by the same changes (reduction in specific heat and in the coefficient of volumetric expansion) as characterise the processes of deorientation. There are 16 references. 3437

MA

Theory of the Specific Heat of Chain and Layer Structures. V. V. Tarasov (*Zhur. Fiz. Khim.*, 1950, 24, (1), 111-128).— [In R[illegible]]. T. expounds the Debye quantum theory of sp. heats, according to which the sp. heat of a three-dimensional crystal lattice ∝ T^3 at temp. $T \ll$ the Debye characteristic temp. θ_D, and then points out that in some substances the low-temp. sp. heat ∝ T^2 ($MnCl_2$) or ∝ T (Sb_2O_3, As_2O_3, Bi_2O_3). These relationships appear to be connected resp. with "layer" and "chain" crystal structures, in which the interaction forces between layers or chains of atoms are smaller than the forces within the layers or chains. T. then works out the Debye treatment for an m-dimensional lattice, obtaining for the sp. heat C_m at temp. T the formula:

$$C_m = 3m(m+1)R\left(\frac{T}{\theta_m}\right)^m \int_0^{\theta_m/T} (x^m/e^x - 1)dx - 3mR\left(\frac{\theta_m}{T}\right)\left[\exp\left(\frac{\theta_m}{T}\right) - 1\right]^{-1}.$$

R being the gas const. and θ_m a const for any substance, analogous to the Debye characteristic temp. Tables of this function for $m = 1$ (chain structures), $m = 2$ (layer structures), and $m = 3$ (Debye function) are given. T. shows that if $\theta_m/T \gg 1$, $C_1 = \pi^2 R(T/\theta_1)$, $C_2 = 43{\cdot}272\, R(T/\theta_2)^2$, and $C_3 = (12/5)\pi^4 R(T/\theta_3)^3$. The C_2 function satisfactorily describes the low-temp. sp. heats of As, with $\theta_2 = 331°$ K., and of Sb, with $\theta_2 = 223°$ K. (Anderson, *J. Amer. Chem. Soc.*, 1930, 52, 2296); and of Ge, with $\theta_2 = 257°$ K. (Landolt-Börnstein, "Physikalisch-Chemische Tabellen" 2. Erg. Bd., 1931, II, 1169). The C_1 function describes the low-temp. sp. heat of cryst. Se, with $\theta_1 = 371°$ K. (Anderson, *J. Amer. Chem. Soc.*, 1937, 59, 1036; *M.A.*, 4, 484). T. develops his theory to allow for interaction forces between the chains or layers of atoms, by using the Debye distribution function for lattice vibration frequencies up to a critical value, and the one- or two-dimensional distribution function at higher frequencies.

—G. B. H.

TARASOV, V. V.

③

C.A. V-48
Jan 10, 1954
lass, Clay products,
Refractories and
nameled Metal

The heterodynamism of silicate glasses. V. V. Tarasov and Ya. S. Savitskaya (D. I. Mendeleev Inst. Chem.-Technol., Moscow). *Zhur. Fiz. Khim.* 27, 744-52(1953); cf. *ibid.* 26, 1374(1952).—The mol. heat capacity *C* of glassy Na_2SiO_3 is 6.693, 8.092, 9.161, 9.887, 11.11, 12.07, 12.76, 13.58, 14.76, 15.82, 17.93, and 19.18 cal. at 63.740, 71.635, 78.086, 84.425, 92.546, 97.976, 104.27, 110.33, 118.99, 129.83, 149.10, and 162.48° abs., resp. These data agree with the theoretical equation, assuming that *C* consists of 2 terms representing (a) vibrations of the O.SiO.O chains and (b) vibrations of the Na ions. Term (b) is greater than term (a); e.g., at 96° abs. (a) is 60% of *C*. The characteristic Debye temps. θ are for (a) 1323° abs., i.e. identical with θ for cryst. Na_2SiO_3, and 232° abs. for (b) as compared with 256° abs. for cryst. Na_2SiO_3. The at. chains in SiO_2 are fully branched, i.e. each Si is, through O atoms, in contact with 4 other Si; when the ratio O:Si increases, the no. of branches decreases, and at O:Si = 3 each Si is, through O atoms, in contact with only 2 other Si. The Si-O bonds are more elastic than those between the Si-O chain and the metal cations. Orientation of the O.SiO.O chains may be responsible for the peculiarities of glass filaments. J. J. Bikerman

7-13-54

TARASOV, V. V.

Livshits, I. M.

Remarks on I. M. Livshits' works; "Thermal properties of chain and layer structures at low temperatures" and "Heat capacities of thin films and acicular-shaped bodies." Zhur. fiz, khim., 26, No. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 ~~1953~~, Uncl.

TARASOV V.V.

Sept 52

USSR/Chemistry-Quantum Theory of Heat Capacity

"Hydrogen Bonds in Crystals and Glasses and the Quantum Theory of the Heat Capacity of Chain and Laminar Structures," V.V. Tarasov; Moscow

Zhur Kiz Khim, Vol 26, No 9, pp 1374-1382, 1952.

Discusses application of the quantum theory of heat capacity to chain and laminar crystals with H bonds. The heat capacity of sryst HF, in a temp range of 11.02-77.4° #K, is well represented by the theoretical formula of the heat capacity of chain and laminar structures. On the basis of an analysis of the course of heat capacity curves at medium temps, the chain and laminar structures of cryst and glass like substances can be investigated. Examined particularly the application of the quantum theory to the form and form of oxalic aicd. Gives the theoretical curve of the differential heat capacity of the form (the chain form) as compared with the form (the laminated form) of $H_2C_2O_4$. Demonstrated that this curve must have a max at about 30° #K. Examined the lattice of the trihydrate of sulfuric acid on the basis of the course of the heat capacity curve between 23.75 and 76.89° #K

263 T 21

TARASOV, V. V.

231T11

USSR/Chemistry - Silicates **May 52**

"Metasilicate Chains and the Theory of Heat Content," V. V. Tarasov, Chem-Tech Inst imeni D. I. Mendeleyev

"Dok Ak Nauk SSSR" Vol 84, No 2, pp 321-324

Tarasov finds that agreement of exptl and calcd **values** of heat content indicates that **all** of **the** oxygen and silicon atoms in cryst **metasilicate** chains comprise a single linear continuum $(SiO_3)_\infty$. Presented by Acad A. F. Ioffe **20 Mar** 52.

231T11

(CBA-A1 Mr. '53:232)

ASOV, V. V.

BTR, v.3,
Feb 1954
Ceramics +
Concrete

(2)

1570* Heterodynamics of Silicate Glasses. (Russian.) V. V. Tarasov and Iu. S. Savitskaia. Zhurnal Fizicheskoi Khimii, v. 27, no. 5, May 1953, p. 744-752. The ratio of Si and O atoms in the glass controls types of bonding, which in turn influence mechanical properties. Tables, graph, diagrams. 11 ref.

Chemico-Tech. Inst. im. D.I. Mendeleyev, Moscow

TARASOV, V.V.

USSR.

Heat capacity of chain and layer structures. V. V. Tarasov (D. I. Mendeleev Chem.-Technol. Inst., Moscow). *Zhur. Fiz. Khim.* 27, 1430-5(1953); cf. *C.A.* 44, 4742f.—A math. discussion. Literature data are cited in support of T.'s theory of heat capacity. The equation $C_v = 43.272R(T/\theta)^2$, where C_v, T, and θ are heat capacity, temp., and characteristic temp., resp., is solved for the case of graphite (I) with the aid of the data of Esterman and Kirkland on the C_v of I; θ_I is 614°K. Values of θ calcd. from T.'s theory are indicated in a table for $Se_{(c)}$, $Sb_2O_{3(c)}$, As_2O_3, Bi_2O_3, $HF_{(c)}$, $Na_2SiO_{3(c)}$, $Na_2SiO_{3(v)}$, $MgSiO_3$, graphite, $As_{(m)}$, $Sb_{(m)}$, Bi, $MnCl_{2(c)}$, $MgCl_{2(c)}$, $FeCl_2$, $Mg(OH)_2$, and $Ga_{(c)}$, where c, v, and m are cryst., vitreous, and metallic, resp. 27 references. J. W. Loweberg, Jr.

TARASOV, V. V.

Specific heat and the structure of silicate glasses. V. V. Tarasov and Ya. S. Savitskaya. *Doklady Akad. Nauk S.S.S.R.* 88, 1019-22(1953).—When the ratio of O to Si of a glass increases to between 2 and 3, the no. of tetrahedrons which are not united at the top also increases. If the ratio of O to Si is 3 the structure becomes a spatially bent metasilicate chain of the compn. $(SiO_3)_\infty$, immersed in the elec. force field of univalent cations. The sp. heat of such a chain in Na_2SiO_3 is expressed by the formula $Na_2SiO_{3\,cryst.} = 4c_{1(\theta_1)} + 2E(256/T)$, where c_1 is a function of 2 characteristic temps., $\theta_1 = 1323°$ and $\theta_2 = 0.3 \times 1323 = 397°$. θ_1 and θ_2 have the same value in $MgSiO_3$. The sp. heat of Na_2SiO_3 glass (mol. wt. 122.064 at 0°) has been measured between 63.740 and 162.48°K. The exptl. results are in good agreement with the theoretical curve. The surface under the curve can be sepd into 2 parts, one corresponding to the Na^+-cation vibrations and the other to vibrations of the $(SiO_3)_\infty$ chain.

S. Pakswer

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①

TARASOV, V. V.

"Chain and Layer Structures in Crystals and glass the Quantum Theory of Thermal Capacity." by V. V. Tarasov. pp. 309-321.

SO: Works of the Inst. of Crystallography, Issue #10, (Reports submitted at the 3rd International Congress of Crystallography; published by the Acad Sci USSR, Moscow, 1954)

TARASOV, V. V.

USSR/ Physics - Glass making

Card 1/1 Pub. 104 - 3/9

Authors : Tarasov, V. V., Dr. of Chem. Sc. Professor

[redacted]

Title : The quantum theory of specific heat and the structure of silicate glass

Periodical : Stek. i ker. 2, 6-9, Feb 1954

Abstract : The quantum theory of specific heat for chain and lamellar structures, which was developed in the USSR and in use there for the past decade, is capable of revealing certain important structural characteristics of solid bodies regardless of whether they are in crystalline or vitreous state. By applying this theory it is possible to determine whether a glass has a chain or lamellar structure. The quantum theory method also makes it possible to determine the presence of elongated continuous little chains in vitreous metasilicate or branched fused parts of much shorter chains in glass. The silica chains found in the structure of glass can be used as the bases for determining the physical, chemical and technological properties of glass. Eleven references: 5-USA and 6-USSR (1945-1953). Drawings; diagrams.

Institution: .....

Submitted: .....

TARASOV, V. V.

USSR/Chemistry - Physical chemistry

Card 1/1 : Pub. 147 - 20/21

Authors : Myuller, R. L.

Title : Discussion on the theory of specific heat of vitreous heterodynamic structures

Periodical : Zhur. fiz. khim. 8, 1521-1522, Aug 1954

Abstract : A critical review of a book entitled, "About New Experimental Confirmations of the Specific Heat Theory Chain Type and Lamelar Structures", by V. V. Tarasov, is presented. The critic points out that only after all major problems of the specific-heat theory are solved will it be feasible to apply quantum functions to ion-atom valent vitreous systems. It is also pointed out that the vitrification temperature of silicate systems is high not as a result of greater ion bond energies, as claimed by the author of the book, but as a result of high-values of quasi-elastic valent-bond coefficients. Six references: 5-USSR and 1-German (1931-1953).

Institution : ...

Submitted : February 15, 1954

Tarasov, V. V.

✓ **Chain and layer structures in crystals and glasses and the quantum theory of heat capacity.** V. V. Tarasov. *Trudy Inst. Krist., Akad. Nauk S.S.S.R.* ~~16, 188-28~~ (1954); cf. *Doklady Akad. Nauk S.S.S.R.* 58, 577 (1947); C.A. 39, 5163¹; 44, 4742f; 49, 5052b. Modifications of the Debye equation for the heat capacity as a function of [illegible] are given for one- and two-dimensional [illegible] [illegible] proposed for one-dimensional structures agree with [illegible] [illegible] 1792g. Such [illegible] are much facilitated by the [illegible] tables given by Chernoplekov (C.A. 40, 5950f) and nomograms with the limits $\theta_2/\theta_1 = 0$ and $\theta_2/\theta_1 = 1$ (the usual Debye function). For $T/\theta = 0.1$ the ratio of the C data calcd. from Tarasov's equations and the Debye function is 4.31 and for $\theta_2/\theta_1 = 0.3$ it is 3.78; this illustrates the considerable difference between these laws. Exptl. data are given for the layer structures of $MnCl_2$ ($\theta_1 = 335$), $MgCl_2$ ([illegible]), $FeCl_2$ (323°), Ga (257°), As ([illegible]), Sb ([illegible]), graphite (1370°). On graphite an extensive discussion is given of the results of Gurney, C.A. 47, 3088. Further are discussed the degrees of freedom of vibrations in isotropic (ionic and metallic) and anisotropic (covalent [illegible]) [illegible] tions and bonding mechanisms in the layers. [illegible] case the heat capacity is detd. by the [illegible] [illegible] established for Ga, with [illegible] [illegible] 322 g. [illegible] g. atom degree [illegible] [illegible] For the chain structures of the oxides [illegible] valentinite (Sb_2O_3) and [illegible] [illegible] sional modified Debye function is [illegible] degrees of freedom of vibrations are active in an ionic binding type. Also one-dimensional is the mechanism for B_2O_3 crystal and glass. The Na_2SiO_3 glass is a typical chain structure with $[SiO_3]_n$ units as ionic layers and Na^+ cations vibrating as independent Planck-Einstein oscillators (cf. C.A. 46, [illegible] 12382i). In $Na_2Si_2O_5$ no indications for layer structures are observed, and the quantum-theoretical [illegible] corresponds to structures with chains, perhaps [illegible] chains. [illegible]

TARASOV, V.V., professor, doktor khimicheskikh nauk.

Quantum theory of the thermal capacity and structure of silica glass. Stek.i ker. 11 no.2:6-9 F '54. (MLRA 7:1)

(Glass)

TARASOV, V. V.

The velocity of sound and the [illegible] energy of the quasi [illegible]

[illegible] The final form [illegible] where [illegible]

[illegible] 14 [illegible] (1940) $d \ln u / d \ln V$ = [illegible] which when integrated, becomes $u V^{1/3}$ = const [illegible] where [illegible] is the [illegible] However computation of [illegible] the velocity of sound in [illegible] and in liquid N [illegible] shows that [illegible] gives more near [illegible] for 7 values for the velocity of sound in liquid [illegible] from [illegible] to 90° K, the max. variation of [illegible] is from 547 to 615 or about 12%, whereas for w/ρ^{1} the max. variation is 698-708 or about 1.5%, similarly for the 5 quoted values for the velocity of sound in liquid N at 65 to 77° K, w/ρ^{1} varies from 1600 to 1628 or about 8%, whereas w/ρ^{1} varies from 1310 to 1333 or about 1.7%. Probably the most important feature of the final equation is the possibility of correlating velocity of sound and characteristic temp., i.e., acoustics (w), and thermodynamics and spectrographic methods (θ), in investigating the nature of liquids and glass-forming materials.

V. H. Gottschalk

TARASOV, V. V.

USSR/Physics

Card 1/1

Authors : Tarasov, V. V., and Ponedel'nikova, E. G.

Title : The speed of sound and the structure of associated liquids

Periodical : Dokl. An SSSR, 96, Ed. 4, 789 - 791, June 1954

Abstract : The nature of the associative structure of liquids and its effect on the speed of sound is discussed. The velocity of sound depends directly upon the values of the quasi-elastic coefficients of the bonds between the molecules of the liquid. Associated liquids should have a much higher value of the speed of sound than nonassociated liquids. The difference in the degree of the effect of association on the speed of sound or the adiabatic compressibility is interpreted by taking into consideration the nature of the associative structures. Nine references. Graphs.

Institution : The D. I. Mendeleyev Chemical-Technological Institute

Presented by: Academician P. A. Rebinder, March 9, 1954

TARASOV, V. V.

USSR/Chemistry - Physical Chemistry

Card : 1/1

Authors : Ponedel'nikova, E. G. and Tarasov, V. V.

Title : The generalized Rao law for associated liquids

Periodical : Dokl. AN SSSR, 96, Ed. 6, 1191 - 1194, June 1954

Abstract : In order to test the generalized Rao law the authors measured the speed of ultra sound in liquids the molecules of which form various types of associative structures due to the hydrogen bond. The measurements were carried out by means of a sound interferometer and a quartz plate with natural frequency of 1 mc was used as the source of ultrasonic oscillations. Results indicate that the Rao law, in its generalized form, is applicable to all liquids. Associated liquids are subject to the Rao law in the same degree as are nonassociated liquids. Seven references. Tables, graphs, diagram.

Institution : The D. I. Mendeleyev Chemico-Techn. Institute, Moscow

Presented by : Academician P. A. Rebinder, March 9, 1954

TARASOV V.V

USSR/Physical Chemistry - Liquids and Amorphous Bodies. Gases B-6

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3652

Author : Tarasov V.V.
Inst : Academy of Sciences USSR
Title : Quantum Theory of Thermal Capacity and Structure of Silicate Glass

Orig Pub : Sb.: Stroyeniye Stekla. M.-L., AN SSSR, 1955, 62-69

Abstract : See RZhKhim, 1954, 49482.

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TARASOV, V. V.

USSR/Chemical Technology. Chemical Products and Their Application -- Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5161

Author: Tarasov, V. V.

Institution: Academy of Sciences USSR

Title: Thermal Capacity Theory and Microheterogeneity of Glass

Original Publication: Sb. Stroyeniye stekla, M.-L., AN SSSR, 1955, 336-337

Abstract: By the method of low-temperature thermal capacity can be revealed and investigated frameworks even in glasses of low content in silicon dioxide. Glasses form chains or interwoven chains, which makes it possible to interpret the mechanical properties of glass, in particular those of glass fibers. Presence of crystallites and of microheterogeneous regions cannot appreciably affect the progression course of thermal capacity in the low temperature region.

Card 1/1

TARASOV, V. V.

USSR/ Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 24/26

Authors : Tarasov, V. V.

Title : Chain structures of As, Sb, and B sesquioxides and the specific heat theory

Periodical : Zhur. fiz. khim. 29.1, 198-202, Jan 1955

Abstract : It is shown (in a letter to the editor) that the specific heat of As_2O_3 and Bi_2O_3 is well described in a previously proposed function for chain structures. The linear law of specific heat for As_2O_3 and Sb_2O_3 in a certain temperature zone is explained. Data regarding the specific heat of B_2O_3 indicate that the high temperature modification of B_2O_3 actually has a chain structure. Analysis of specific data for sodium bisilicate shows that this substance has a chain and not a lamelar structure. Seventeen references: 8 USSR; 6 USA; 2 German and 1 Scandinavian (1930-1954). Tables; graphs; drawings.

Institution : The D. I. Mendeleyev Chemical Technological Institute, Moscow

Submitted : July 9, 1954

TARASOV, V.V.

USSR/ Chemistry - Physical chemistry

Card 1/2 Pub. 22 - 29/52

Authors : Tarasov, V. V.

Title : Anisotrophy of atomic oscillations and the specific heat of laminated and chain structures

Periodical : Dok. AN SSSR 100/2, 307-310, Jan 11, 1955

Abstract : The rules governing the anisotropy of atomic oscillations and specific heat in compounds the crystal lattices of which have laminated or chain structures are explained. The results obtained by applying the quantum theory to laminated and chain structures are listed. A study of thermal diffusion factors of x-ray for covalent chains shows that the atoms oscillate only perpendicularly to the chains and not along the chains.

Institution : The D. I. Mendeleyev Chemical Technological Institute

Presented by : Academician A. F. Ioffe, June 24, 1954

Periodical : Dok. AN SSSR 100/2, 307-310, Jan 11, 1955

Card 2/2 Pub. 22 - 29/52

Abstract : A single parameter equation is described which determines the specific heat of elements and simple inorganic compounds the crystal lattices of which have only laminated structures. Nineteen references: 6 USSR; 11 USA and 2 English (1935-1954).

TARASOV, V. V.

KARCHEVSKAYA, V.K., kand. vet. nauk; TARASOV, V.V.

Disinfection by dry heat using the electric energy. Sbor. trud. Mosk. zoop. no.1:150-155 '56. (MIRA 10:11)

(Heat as a disinfectant)
(Zoological gardens--Disinfection)
(Electric apparatus and appliances)

TARASOVA, V.P.

USSR/Laboratory Equipment - Instruments.,Their Theory, Construction and Application. H.

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 19763

Author : Ya.I. Grayevskaya, V.I. Iveronova, V.P. Tarasova

Title : Specialized Installation for Determination of Intensity of X-ray Reflections with Geiger's Counters,

Orig Pub : Kristallografiya, 1956, 1, No 4, 442-445

Abstract : The installation is assembled on the base of a standard x-ray apparatus URS-55, parts of the optical bench OSK-1, conversion radio-schemes PS-64 with mechanical and Geiger's counters RM-4. The intensities of diffraction lines with reflection angles of 5 to 74° can be measured with the installation. There is no stabilization of the voltage and current. The intensity of the tube radiation is checked with a separate counter.

Card 1/1

15-57-7-9476

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 107 (USSR)

AUTHORS: Tarasov, V. V., Stroganov, Ye. F.

TITLE: A Study of the Structure of Microheterogeneous Glass-Forming B_2O_3 by the Low-Temperature Heat-Capacity Method (Izucheniye struktur mikrogeterogennogo setkla i stekloobraznogo B_2O_3 metodom nizkotemperaturnoy teployemkosti)

PERIODICAL: Tr. Mosk. khim-tekhnol. in-ta, 1956, Nr 21, pp 26-33

ABSTRACT: The authors experimented on the measurement of heat capacity in the temperature range from 65.8° to 167.6° K in order to determine the structures of sodium borosilicate glass composed of 4 percent Na_2A (sic), 26 percent Ba_2O_3, and 70 percent SiO_2 (molar percentages) and of glass-forming anhydride. They ascertained the additive relationship of the heat

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15-57-7-9476

A Study of the Structure (Cont.)

capacity for these glasses relative to the phases of SiO_2, Ba_2O_3, and the autonomous vibrator Na^+, confirming the microheterogeneous structure of the glasses. They identified a possible chain structure in the glass-forming boron anhydride and proposed a Ba_2O_3 chain structure similar to the orthorhombic modification of Sb_2O_3 (valentinite).

Card 2/2 L. N. Smirnov

Тарасов, В. В.

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. Physicochemical analysis. Phase transitions B-8

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11122

Author : Tarasova L.M., Tarasov V.V.

Inst : Academy of Sciences USSR

Title : Zero Energy of Oscillations of Chains and Layers and Heat Capacity

Orig Pub : Dokl. AN SSSR, 1956, 107, No 5, 719-722

Abstract : On the basis of differential "combined" laws of distribution of natural oscillations (Tarasov V.V., Dokl. AN SSSR, 1945, 46, No 1, 22; 1947, 58, No 4, 577; Zh. fiz. khimii, 1950, 24, No 1, 111) there have been derived expressions for zero energies if lattice oscillation: $E_1 = 3/4R[(\theta_1^2 - \theta_3^2)/\theta_1] + 9/8R\theta_3\,7a\,(\theta_3/\theta_1)$ (chain structure); $E_2 = R[(\theta_2^3 - \theta_3^3)/\theta_2^2] + 9/8R\theta_3(\theta_3/\theta_2)^2$ (layer structure) (θ_1 or $\theta_2 = h\nu$(max) / k and $\theta_3 = h\nu$/ k). With $T \leq 1/7\,\theta_1$ (chains) or $T \leq 0.1\theta_2$ (layers) there is observed a transition to the limiting T^1 or T^2 law of heat capacity on the condition that θ_1 or $\theta_2 \gg \theta_3$. If θ_1 or $\theta_2 \sim \theta_3$, T^1 or T^2 region may be absent, i.e., a gradual transition to T^3 law will be observed with $T \leq 0.1\theta_3$. This is precisely that which is observed in the case of a layer structure of MoS_2. (Abstract of paper; Meeting Am.

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USSR/ Physical Chemistry - Thermodynanics. Thermochemistry. Equilibrium. B-8
Physicochemical analysis. Phase transitions

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11122

Phys. Soc., Berkeley: Westrum E.F., McBride J.J., Phys. Rev., 1955, 98, 270). Determined was the percentage of deviation Δ of limite T_3 law from heat capacity function of Tarasov in the case of a layer crystal. $\Delta = 1.203\%$ with $\theta_2/T = 9.5$ and $\Delta = 0.83\%$ with $\theta_2/T = 10$. In the case of CdI_2 the T^2-law can hold only at Helium temperatures. For this reason in the paper (RZhKhim, 1956, 3378) the region of applicability of T^2-law could not be determined.

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